

The damage to cotton by *Diacrisia virginica* in Victoria and Calhoun Counties in 1918 is claimed by farmers to be from twenty-five per cent. to total destruction. I visited the land of Mr. Jay Hubbard in Calhoun County, and found the destruction of cotton on sixty-five acres to be complete. The fields of Mr. Hubbard as well as the lands adjoining were free of weeds.

The only parasite bred from this species is *Eremotylus arctiac* Ashmead, which has been determined by R. A. Cushman.

A *Melaphis* from Moss (Hom.)

By A. C. BAKER, U. S. Bureau of Entomology, Washington, D. C.

Only one American species has been recorded in the genus *Melaphis*. This is the type species, *Melaphis rhois* (Fitch), a form which produces galls on the sumach. Certain closely related species, occurring in other countries and like *rhois* forming galls on sumach have been referred to the genus *Schlectendalia*. This genus the writer (ENT. NEWS, Vol. xxviii, p. 385) has placed as a synonym of *Melaphis*. All of the species referable to *Melaphis*, therefore, form galls upon some species of sumach. It is noteworthy that these are fall galls, not spring ones like most of the common galls produced on poplar, etc., by species of *Pemphigus* and other aphids. The spring generations of our *Melaphis rhois* have not been discovered.

On April 29, 1916, Mr. E. B. Blakeslee sent the writer samples of moss which he found infested with an aphid at Springfield, West Virginia. At the time these samples were received only young apterous forms were present. It is quite probable that these were produced by stem mothers originally present, but no such forms were found. The moss was placed in breeding cages and the young insects reared to maturity. All of these proved to be winged forms which were unable to live upon the moss. Slide mounts of several of these were prepared, but before a careful study could be made of them all of the other alate insects were dead.

As soon as a careful study was made of the specimens it

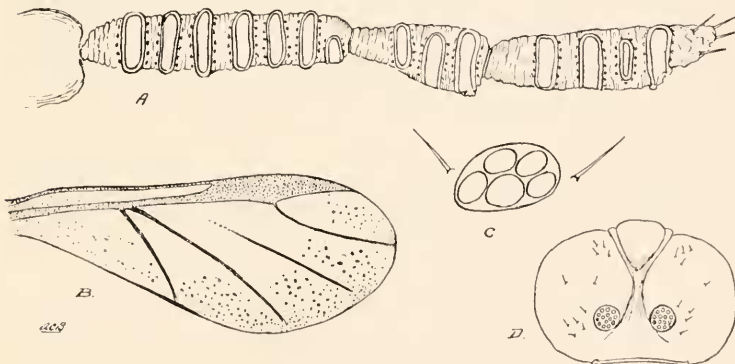
was found that they seemed to fall in the genus *Melaphis*. This had not been suspected or transfers to sumach would have been made to see if by any possible chance these might be the long missing spring migrants of *rhois*. It is true that they differ quite distinctly from *rhois*, but a connection with that species would be a remote possibility and worthy of a trial.

Since the specimens mentioned no other examples have been found and as the species may not be again met with for several years it seems advisable to publish a description of the insect and thus call the attention of other workers to it in the hope that someone may have the opportunity to study its life history.

***Melaphis minutus* n. sp.**

Alate viviparous female.—Color yellowish green. Head and thorax darker. Eyes dark brown. Legs, antennae and borders of wing veins dusky.

Length from vertex to tip of cauda about 0.96 mm., measurements of the antennal segments and their sensoria given in the accompanying



Details of *Melaphis minutus*.

A, Antennal segments III, IV, and V; B, Forewing; C, A caudal pore plate from head; D, Thorax with two pore plates.

table. Sensoria somewhat oval and transverse with a distinctly visible rim and surrounded with a row of dark black points. It is impossible to ascertain the exact nature of these but under the highest power available they appear as minute, thick spines. Segments III, IV and V irregularly imbricated (Fig. 1-a). Head with three pairs of wax-pore plates visible from above, one of these on the vertex, one on the top of

the head, slightly in front of the eyes and the other near the caudal margin of the head. The number of facets in these (Fig. 1-c) varies, the caudal pair having about five each, whereas the more frontal ones have only two. Thorax with two large pore plates near the inner margins of the lobes (Fig. 1-d). These are composed of a rather larger number of facets, there being usually about ten. Forewing (Fig. 1-b) with the veins rather heavy, the media atrophied for some distance at the base. Cubitus and anal arising close together, sometimes united at their bases. Hind wing with the two oblique veins some distance apart at their bases. Hind tibiae about 0.352 mm. long, middle tibiae 0.272 mm. Beak reaching to the hind coxae. Cornicles absent. Abdomen with rather small marginal wax plates. Cauda and anal plate rounded.

DETAILS OF ANTENNAE OF MELAPHIS MINUTUS.

Ant. III	Sen.	Ant. IV	Sen.	Ant. V	Sen.
0.08 mm.	8	0.048 mm.	3	0.08 mm.	4
0.096 mm.	7	0.048 mm.	5	0.08 mm.	4
0.096 mm.	7	0.048 mm.	3	0.08 mm.	4
0.096 mm.	7	0.048 mm.	3	0.064 mm.	4
0.08 mm.	7	0.048 mm.	5	0.064 mm.	4

Described from a number of cotypes on balsam mounts bearing Bureau of Entomology, Q., No. 13052, and reared from moss on May 5, 1916. These slides have been deposited in the United States National Museum Collection.

The Early Stages of *Catocala minuta* and a Description of a New Variety of *C. obscura* (Lepid.).

By ERNST SCHWARZ, St. Louis, Missouri.

Ova. Elongated oval, transparent, smooth, glossy, light ochre. Area about micropyle rather large, marked by a ring of many small protuberances; micropyle diminutive.

Larva, Stage I. Head of larva light ochre, body whitish green, tubercle places marked with black dots. The anterior two pairs of prolegs are rudimentary, the posterior two are well developed and are lined posteriorly with black.

Stage II. Head bifurcated, not deeply cleft; color whitish green, and the lines on side of lobes are irregular. Body color greenish white with the longitudinal lines a darker shade of green. The tubercles are marked by black dots. The true and prolegs concolorous; no lateral setae. The ventral portion of the body is white, slightly tinged with green, usual dark blotches present.

Stage III. Head small, bifurcated, rather round, cleft not promi-